

THE CONDOR

A Magazine of Western
Ornithology



Volume IV

July-August, 1902

Number 4



W.A.C.C.

COOPER ORNITHOLOGICAL CLUB

Santa Clara, California

.. CONTENTS. ..

	Page
Incubation Advanced (<i>sketch</i>).....	Corydon Chamberlin 77
Vocal Powers of the Yellow-billed Magpie.....	H. R. Noack 78
Some Echoes from the Sierras (<i>one plate</i>).....	C. Barlow 79
Nesting of the Ruby-crowned Kinglet.....	H. F. Bailey 81
Notes on the Black-throated Gray Warbler (<i>one plate</i>).....	C. W. Bowles 82
Nesting of the Little Flammulated Screech Owl.....	M. F. Gilman 85
Winter Plumage of the Black-tailed Gnatcatcher.....	H. S. Swarth 86
An Unusual Set of Eggs of Clarke Nutcracker.....	H. C. Johnson 87
Notes on the Verdin.....	M. F. Gilman 88
The Southern White-headed Woodpecker.....	Joseph Grinnell 89
Bird Studies in Strawberry Valley.....	Mrs. C. A. Moody 91
A Domesticated White Pelican (<i>two plates</i>).....	93
FROM FIELD AND STUDY. Large Set of Cactus Wren; Vermilion Flycatcher at Escondido; Arizona Goldfinch in Los Angeles County; Western Blue Grosbeak in Northern Colorado; Odd Gyration of Hummingbirds; Rose-breasted Grosbeak in Colorado; Nesting of Pine Siskin in Santa Cruz Co.; Nightingales in California: A Query; Stragglers in Los Angeles Co.; Wren-tit Building in a Tree; An Unusual Sight.....	94
PUBLICATIONS REVIEWED: Pacific Coast Avifauna No. 3; Oberholser's Review of the Horned Larks.....	96
Editorial.....	98
CORRESPONDENCE: The Galapagos Expedition.....	99
Official Minutes; Obituary; Publications Received.....	100

A Check-list of California Birds

CONSTITUTING

Pacific Coast Avifauna, No. 3.

BY JOSEPH GRINNELL.

It gives synonyms, seasons of occurrence and the range of 491 species and subspecies of birds known to inhabit California.

This Check-list was issued June 20th and constitutes the *first complete list of California birds ever published*, containing also a Hypothetical List of 33 species. Colored maps illustrate the Life Zones and Faunal Areas of the state.

The range of each subspecies has been carefully defined, this feature alone rendering the list invaluable to the field worker. Changes have been made in the common names of some species, based upon their geographical range. This and other features, it is considered, will prove a great help to the amateur bird student.

This list has been compiled only after a thorough examination of all available literature and will be found complete to the present day. Every Californian worker will find it invaluable.

Price, 75 Cents, postpaid.

Address C. BARLOW, Bus. Manager,
Santa Clara, Cal.



The Condor

A MAGAZINE OF WESTERN ORNITHOLOGY

Bi-Monthly Bulletin of the Cooper Ornithological Club

Vol. 4. No. 4.

Santa Clara, Cal., July-August, 1902.

\$1.00 a Year

Incubation Advanced.

BY CORYDON CHAMBERLIN.

"INCUBATION advanced" is what I should have said instead of what I did say. I had watched that male Hutton vireo for over two hours and finally "sleuthed" him to a small pine tree where I discerned a nest in the outer

had climbed the tree and got out on the end of the very slender limbs I found the nest as per illustration. This all occurred about April 15, 1897 near the Jumper Mine in Calaveras county, Cal. The nest was composed of moss woven



foliage. It was about twenty feet above the ground and fairly well concealed among the pine needles. I could see the tail of a bird on the nest. "Patience and perseverance at last rewarded" says I, "She's setting. I can see her tail over the side—pretty nest too." When I

together with fine grass and hair. A few lichens adorned its outside. The young were nearly full grown, two slept peacefully, but the third and probably the eldest was quite on the alert while I made a hasty sketch.

Vocal Powers of the Yellow-billed Magpie.

BY H. R. NOACK, OAKLAND, CAL.

+ MY acquaintance with the yellow-billed magpie (*Pica nuttalli*) began eight years ago while I was visiting near Wheatland in Placer County, and through the medium of two members of the family has continued from that time to the present day with a constantly growing feeling of friendship and an unconcealed admiration for the intelligence, good nature, and native good humor hidden beneath their little coats of black and white.

It was on June 3, 1895, that I was riding horseback through a grove of white oaks with my eyes open for anything that might turn up, when I noticed a magpie's nest about thirty feet up, and well out toward the end of the limb. After a rather hard climb I came within four feet of the nest, and was pretty well aware by that time that it was inhabited, judging by the vociferous cries of two old birds who came swooping down uncomfortably near my head. A good sharp shake of the branch in which the nest was located, brought forth a screaming cloud of young, fairly well feathered, and in fact just old enough not to venture from the nest unless disturbed, but about the right age to consider seriously the desirability of trying a short flight. I counted seven young birds, and after considerable scrambling captured one and forced two more down to the grass below, where they were easily taken.

After getting them home and safely caged I found that instead of being at an end my troubles had only begun, for whenever I came within sight three big, red, gaping mouths opened automatically and spelled in words that could not be misunderstood—"Grasshoppers—more grasshoppers." The remainder of my vacation was given over to the care of my charges, and they responded so well that one died during the first week but the remaining two grew fat and were not contented out of my sight.

Upon returning home in July a large wire cage with plenty of flying room was provided, more as a precaution against cats than as a preventative of escape, and the two magpies, John Henry and Hattie, settled down to civilized life. I had heard a good deal said and had read accounts of the talking qualities of crows, ravens and magpies, but scarcely believed that the native magpies of our state would develop this power. However, I was very agreeably surprised and much amused one morning about three months after the capture of the magpies to be greeted by John Henry with the words "come on." He had learned his first words by hearing them used during feeding time. He used this phrase daily for several months and later added his own name and said, "Come on John."

From the time of learning his first words he learned new expressions very rapidly, and without any effort on my part to teach him. After hearing "Come on John," he began calling my name "Harry" which has always been his favorite utterance, and is pronounced in an endless variety of tones from a shrill treble voice to a deep guttural expression seeming to emanate from far down in the throat. After "Harry" he learned "Hattie," the name of his mate, and "Helen," the name of one of my sisters. The family living next door had a very lively member in the person of a son named George, and his mother's calls soon taught John Henry to call "Georgie" with so much facility that Georgie would come running to see what was wanted.

Our stable is within fifty feet of the magpie's cage and my brother, who was acting as hostler, was often about ready to swear when hitching up or currying the horse, when John Henry would cluck to the horse, "ck ck ck," and then say, "Get up, Peter, get up, get up," following immediately with "Whoa boy,

whoa," and continuing with such a variation of "whoas," "get-ups" and clucks that the poor horse would not know what to do.

One of the most amusing uses to which the magpie puts his powers is to call the chickens—"chick-chick-chick-chick" and when they have run eager and expectant in the direction from which the sounds come, which is naturally the cage, to seize one by the comb or the back of the neck and pull out a few feathers or spill a little blood. An old game hen used to respond to his calls, and as soon as she received a tweak on the head would ruffle up and begin a regular fight through the wire netting. At this time John Henry exhibited himself at his best. While flying at the hen he would keep saying "chick-chick-chick, come on, come on, Harry, Harry—get up—hello," in fact, he would go through almost his entire vocabulary while fighting and pulling out feathers.

He will sit by the hour on bright warm days and whistle and jabber, bringing in an intelligible word once in a while, but as a rule giving utterance to sounds, not native magpie language, yet still not capable of being translated into English. These sounds are similar to those uttered by very young children during their play in imitation of their elders. At times the bird's words are so opportunely chosen as to almost lead to a belief that they are spoken intelligently. I feel sure that this is the case when he calls "Harry" under certain conditions, such as when frightened or hungry, as my name pronounced in certain peculiar tones conveys these meanings.

Both of my magpies talk and whistle,

but it is John Henry who is most proficient; in fact the talking and whistling qualities in the female are not developed to any such extent as in the male, but my experience has been too limited to permit me to judge whether this peculiarity is due to the sexes or not. I understand, however, that male parrots talk better than females.

As to the question of "splitting the tongue" as commonly expressed, which consists merely in cutting the membrane beneath the tongue to allow that member more freedom in movement, I am of the opinion that this operation would not be productive of any material improvement in articulation. My birds can speak almost as clearly when holding a stick or food or any kind of solid in the bill as when it is empty, the movement producing the sound coming from the throat.

Mischievous by nature, they are always looking around for bright objects to play with. They will spend half a day with a tin spoon, a piece of glass or a key. All play-things not too large are buried in sand or grass or covered over with sticks and leaves or poked into nooks and crevices in the cage. I have never experienced any difficulty in providing suitable food. They take kindly to raw meat, fresh fruit and berries, boiled eggs, nuts and bread. They are also very fond of cheese, and any kind of insects which have moderately hard shells and are not soft or slimy to the touch. Considering the comparative lack of attention necessary for their proper care, and the highly interesting results obtained for the time and labor spent, a pair of pet magpies is a very desirable acquisition to the list of household pets.

Some Echoes from the Sierras.

BY C. BARLOW.

THE Lake Tahoe stage road was traversed by a goodly number of Cooper Club members during June 1902, indicating that this interesting

region still holds charms for the ornithologist. W. W. Price has his usual summer school at Glen Alpine, while John M. Willard of Oakland is looking

after the interests of an excursion of young naturalists at Susy Lake. Forrest Hanford has spent May and June working from Fyffe to the summit in company with L. E. Taylor, while Milton S. Ray and party passed through the region for a several weeks' outing at Lake Tahoe. Mrs. H. B. Wheelock, a popular eastern bird author, spent

The accompanying half-tone portrays Mr. Taylor about to scientifically investigate the nest of a white-headed woodpecker at about 4,800 feet altitude. The nest was ten feet up in a burnt stub and contained small young on June 15. While awaiting Mr. Taylor's arrival and watching the stub I saw one of the birds flying to the



PHOTO BY C. BARLOW.

TAYLOR OPENING A NEST OF WHITE-HEADED WOODPECKER.

some ten days in the region, gleaning observations for a forth coming work.

The writer, joined by H. R. Taylor of *Nidologist* fame, likewise endured the many jolts of the mountain stage that they might wander through the high Sierran forests and observe the alpine species in their summer retreats.

It alighted below the hole, chuckled a few times, when the brooding bird appeared at the entrance and at once flew out. The newcomer then took its place, the exchange consuming but a moment.

At Echo (altitude 5700 feet) June 16 Mr. Taylor found a nest of the russi-

backed thrush (*Hylocichla ustulata*) containing four eggs, placed in a small, dense fir tree in a meadow. This apparently extends the vertical breeding range of this species, since the Big Tree hermit thrush appears at less than 1,000 feet above Echo. An interesting nest of the mountain bluebird (*Sialia arctica*) was also found by Mr. Taylor at Echo, built in a fence post beside the road and containing seven eggs.

A day was spent at Echo Lake (altitude 7600 feet) about the borders of which the unmelted snow of winter still lay, and a passing band of Clarke nutcrackers served to accentuate the impression that we were in the boreal zone. Journeying back to Echo two nests of the Big Tree thrush (*Hylocichla guttata sequoiensis*) were discovered. Mr. Taylor found one rather conspicuously located ten feet up in a young tamarack pine beside the road. It contained three eggs quite well incubated. A short distance farther I secured a nest with four eggs about one-third incubated, built only

two feet up in a small tamarack sapling. Both nests were built in trees directly next to the stage road, where the heat and summer's dust would seemingly prove undesirable to a bird of a thrush's tendencies. In both instances the birds had slipped from their nests before we found them. The nests were deeply cupped and substantially built. This was on June 17.

The Big Tree thrush apparently sings but infrequently during the heat of the day, but for a few hours preceding twilight it makes the mountain meadows resound with rare melody. On June 7 Mr. Hanford secured a Lincoln sparrow (*Melospiza lincolni*) on a meadow at 7,200 feet elevation, where it was probably about to breed. On June 19 near the summit a western goshawk (*Accipiter atricapillus striatulus*) flew across the stage road in front of us, disappearing into the timber. Mr. L. E. Taylor collected two sets of Calaveras warbler, one on May 27 at Fyffe and another on June 1 near Pacific.

Nesting of the Ruby-crowned Kinglet.

BY H. F. BAILEY, SANTA CRUZ, CAL.

DURING a season of "experience" and observation in Alaska I was fortunate enough to take the nest and eggs of the ruby-crowned kinglet (*Regulus calendula calendula*). The birds were abundant during the summer months in the neighborhood of Kenai, Cook's Inlet, where I was located, and bred in the dense spruce timber.

Although I spent much time looking I was never able to find but one nest. On May 15, 1901, while going through the woods I noticed a kinglet carrying material into the top of a tall spruce and I watched her. She was very busy. The nest was not visible on account of the thick foliage, but I noted the place, marked the tree, and blazed a trail to it. Two weeks later, May 28, I revisited

the spot but the birds were not about and I could flush nothing out of the tree. However, I could hear the male bird repeating his whistling song, very much in the style of the olive-sided flycatcher, from the top of the tallest tree in the vicinity. His note can be heard as far as the olive-sided flycatcher's and is all out of proportion to the size of the bird.

I decided to wait a while longer before investigating the nest. June 6 when I jarred the tree again the bird flew out. The mosquitoes were terribly numerous and hostile by this time, and I reluctantly removed my head covering, before ascending the tree, to prevent its getting torn on the short wiry branches. The nest was about thirty feet up where the branches did

not spread more than a foot and a half or two feet from the stem, and about six or eight feet from the apex. It was suspended among some dead twigs near the trunk and hidden by the surrounding dense foliage.

It was beautifully made, pyriform in shape, with the small end downwards, about six inches long and five inches through at the thickest part. The cup was very deep and the rim very much contracted enclosing a spherical space with a small opening at the top. The material used in construction was moss, fur, and silky, fibrous substances woven compactly together. The lining was of moose hair and feathers from the northern spruce grouse (*Canachites canadensis labradorius*, Bangs). Some of these latter were woven into the rim, the

stems firmly secured and the free tips curling inwards until they met, thus forming a curtain over the contracted opening and completely enclosing the interior. A very warm house was the result.

The number of eggs was eleven, incubation slightly advanced. Ground color, light buff almost white with numerous fine, pale, brown spots, so pale as to be indistinguishable, thickest near the larger end. The effect is as if a fine layer of dust had settled on the eggs. As to size, not having any calipers or other means of measuring them accurately, I can only state in a general way that they resemble in shape the eggs of the California bush-tit, but are considerably larger.

Notes on the Black-throated Gray Warbler.

BY C. W. BOWLES, TACOMA, WASH.

It seems rather superfluous to write anything more about *Dendroica nigrescens*, as it has been written up several times, but there may be no harm in having descriptions from different points of view. Its habits seem to me about the same as the combined habits of the black-throated green and prairie warblers of the Eastern states. Like the former, it likes tall trees (with a preference for conifers) to climb around and nest in, but it wants them well scattered, so as to have plenty of light and air and to give bushes a chance to grow if they do not grow too thickly, so that it can build in a bush if it happens to feel that way. Like *discolor* they prefer high and dry places but do not seem to object if a swamp or river is nearby, if the ground beneath the nest is dry.

On the line between Oregon and California, about thirty miles east of the coast, it seems to prefer oak trees in the spring because of the small green caterpillars that are very numerous on them and which are devoured on all occa-

sions. One female must have eaten nearly half its weight of them (from three-fourths to one and one-half inches long) while its nest was being taken, so that it is difficult to understand how it could hold them all, unless their digestion is as rapid as that of the genus *Pulex* (sometimes called flea.) Two pairs that were watched while building had the same way of going about it. The male followed the female very closely, scolding almost continuously, or perhaps making suggestions, as she did not seem to mind it and gathered materials and acted very much as if he was not there. This continuous scolding generally seems to indicate nest-building and is apparently the only direct method of finding the nest. After the eggs are laid the male is never near while singing and their skill in reaching the nest without being seen can only be accounted for on the principle of the survival of the fittest, for if they were any less careful they would certainly be exterminated by Steller and California jays and

crows. One pair of California jays seemed to have located every nest that was being built in a gulch where they were building their own nest, but as this included a hen-house, and they made the rounds every morning to collect rents, the female was finally caught by a miner's wife and the male suddenly fell dead after inspecting a black-throated gray's nest, which had just been completed and would not have

the nest while it is being examined. It was six feet up in a manzanita bush in a patch of bushes of the same variety about three acres in extent. May 14, 2 p. m., three eggs but no birds in sight but eggs were warm, as is usual when the nights are very cold with all birds that I have noticed. May 15, 6:45 a. m., four eggs and female setting. This nest was near the house so the transit telescope was brought to bear on it



PHOTO BY C. W. BOWLES.

NEST AND EGGS OF BLACK-THROATED GRAY WARBLER.

been found if he had not gone to it.

A nest was found May 11, 1901 at 10 a. m. by following up the violent scolding of the male. It was about three-fourths finished, having no lining and the frame work hardly finished. At 4:30 p. m., it was finished but the birds had disappeared. When first found the birds were very tame making no complaints, and staying within six feet of

about fifty feet away and the birds watched as often as possible till May 20. The general policy of this bird and all others noticed, was to disappear completely and silently when anything of any kind came in sight, until after they became more or less accustomed to my visits, so that finding the nest by flushing the bird would be almost impossible, as they were rarely seen leav-

ing and would not have been noticed when they were seen, if the exact location had not been known. The nests were always so thoroughly concealed that it was impossible to photograph them *in situ* as there was never any point of view that two whole eggs could be seen from.

May 15 she flushed and disappeared while ten feet distant, and by means of the transit, was seen to return about two minutes later, but there would have been no reason to suppose that there was a bird or nest anywhere around if it had not been previously located, and considerable clipping was necessary to make it possible to see it from a distance of fifty feet. She usually sat very deep in the nest with only the beak and tail showing above the edge, but at the slightest sound, she stood up in the nest and looked all around, sliding out on the opposite side from anything that appeared, like the shadow of a falling leaf. May 17, 8 a. m., female setting and passed the time eating caterpillars while the nest was being examined. She did not go over five feet from it this time, till I left when she followed for about twenty feet, and kept almost within reach, watching me very closely with the intense manner that anyone would unconsciously assume if trying to identify a bird that is difficult to see but likely to be lost altogether if any noise is made—as if she were trying to identify *me*. When she started back, I stopped, but she went to the nest not having made a sound all the time.

The male was usually singing or chipping not less than fifty yards away, but May 20, he returned silently and renewed his attentions in the way that I supposed only preceded the egg-laying period, but the female showed no signs of any eggs forming, when dissected. The black patch on the throat of the male was divided by a horizontal white line so it was considered necessary to collect them both, but it is a custom that never seems to develop

toleration, and it seems to be more distasteful each time, but my ornithological apprenticeship, for about the first eight years, was strictly of the opera glass order: in the case of insectivorous and song birds. One day a collection of skins was examined for the first time; about three out of four of the common birds were recognized, the most complete and mortifying failure being that of a yellow warbler,—of course the labels were not looked at purposely. In clear weather, I could without any glass distinguish the colors of the flags of the Weather Bureau, on Blue Hill, from Clarendon Hills (in Massachusetts) a distance that must be quite five miles, which is a long way in that hazy atmosphere, but for some reason I can never be sure of the exact colors of a bird that is not familiar to me, in the constantly changing light and shadow that it passes through, especially on very bright days when the eyes are more or less dazzled, and it seems to me perfectly possible that staring at green leaves so long and fixedly as is often necessary may make colors seem different from what they really are.

Black-throated gray warblers do not object to human association at all; one nest was fifteen feet up on an oak branch, directly over a trail that was used at least six times a day by people going for mail, and generally much oftener. It cannot be for protection from jays etc., for obvious reasons. The male and female seem much more dependent on each other when in trouble than birds usually are. They hop about the branches always within four or five feet of each other, looking everywhere for the nest. The female does not usually begin to complain till after about five minutes; and as the male is usually too far away to hear her faint chipping, she has to go after him, as his louder song is nearly always audible. One female that was followed for considerably over one hundred yards, flew rapidly and almost silently from tree to tree till about fifty yards from the mate

when she began chipping violently. He immediately stopped singing and flew to her and both disappeared—they are almost impossible to follow as a rule. On returning to where the nest had been, both were there, searching everywhere within thirty feet, and always keeping close together, stopping occasionally and looking at each other and chipping exactly as if asking questions about it. The female of one nest gave up looking for the male and staid around waiting for him. In half an hour or so, he returned without singing till about thirty yards away, when the song was entirely different from any that I have ever heard from this or any other kind of bird. It was on the principle of a yellow-throated vireo or a scarlet tanager; but the quality of a blue-headed vireo in addition, making a very strong and rich song. It was just about sunset and he evidently did not suspect danger, so possibly the nest might be located by listening for this song towards evening, but I never heard anything like it afterward. When he arrived they had a hurried conversation in very low but earnest "tsips," on the branch where he first appeared, she having flown to him immediately, evidently explaining everything, before he started to investigate.

A most noticeable characteristic of the birds of southern Oregon is their perfect self-possession. There is no wild, noisy exhibition of fear or despair, and they never become "rattled" or confused. When anything unusual happens, there seems to be a very brief and usually silent period of careful thought and then the decision is methodically carried out. Every crevice in

the bark and every bunch of moss is carefully searched and if the nest and eggs were placed anywhere within ten feet of its original situation, they would certainly be found, but I never thought of trying this to see what the birds would do.

The nests were from three feet and three inches to twenty-five feet from the ground, oaks seeming the favorite in southern Oregon and fir near Tacoma. The usual situation is in a small clump of leaves that is just large enough to almost completely conceal the nest, and yet so very small that a crow or jay would never think of anything being concealed in them. They probably nest higher still, but of course are more difficult to find.

Fresh eggs were found from May 14, to June 24 and there was no reason to suppose that more than one set was laid. As the eggs from Tacoma are very much larger than those from Oregon, it is possible that the birds may vary in the same way that the Parula warbler does on the Atlantic coast. Tacoma eggs average .83x.63 inches and Oregon eggs varying from .62x.48 to .72 x.52 inches. The nests externally are about 3x2¾ inches and internally 1¾x 1¾ inches in diameter and depth. They are composed externally of grass and weed-stalks that must be several seasons old, (being bleached and very soft) moss and feathers; and lined with feathers (one had evidently been lined from a dead Steller jay), horse, cow and rabbit hair or fur, and sometimes the very fine stems of the flowers of some kind of moss. The male has never been seen to assist either at nest-building or incubation.

Nesting of the Little Flammulated Screech Owl on San Geronio Mountain.

BY M. FRENCH GILMAN, BANNING, CAL.

JUNE 3, 1894 stands out in my note book as a red-letter day. On that date in company with my friend, Nathan Hargrave, I was birds-nesting on Raywood Flat about 7500 feet

of the way toward the summit of San Geronio peak, some 11,900 feet high. Those who have hunted for birds nesting in deserted woodpeckers' holes know the labor and disappointment en-

tailed by climbing up to all the holes seen in the dead pine trees and stumps. But in most cases a blow with a rock or club against the stump is considered a sufficient test as to whether the tenement is occupied.

So when I rapped at the base of a dead pine stump with a deserted white-headed woodpecker's hole near the top, and no sign of life appeared, I was about to move on, but the hole looked too promising and I decided to investigate further. Before starting to climb up the sixteen feet to the nest I stood on the hillside above the tree and threw a big rock against the top. The whole side split off down as far as the bottom of the hole and out flew a little owl, and perched on a fir tree a few yards away. We had no shot-gun but my companion carried a 41-Colts, long barrel. I reached that and fired at the bird, missing of course. It flew across a canyon and perched high in another tree fifty or sixty yards away. I was disgusted and handed back the pistol hopelessly. But my friend had

been in the habit of breaking glass bottles thrown into the air so he took the pistol and brought down the owl at long range the first shot.

We then turned our attention to the stump and saw a suspicious mass of hair and fibre resting on what was left of the now exposed bottom of the hole. I shinned up the stump as carefully as possible for fear of shaking the nest loose. It was made of felted hair and fibre similar to the nest of a chickadee. In it were two nearly globular white eggs with incubation just begun. The bird was somewhat shot up by the 41-caliber bullet but I preserved the skin and packed it away for future reference. It lay neglected till May 1897 when I sent it to Dr. C. Hart Merriam for identification. He pronounced it the little flammulated screech owl (*Megascops flammeolus idahoensis*). I have investigated nearly every deserted woodpecker's hole seen since then and rapped on many pine stumps but have seen no more of *Megascops*.

Winter Plumage of the Black-tailed Gnatcatcher.

BY H. S. SWARTH, LOS ANGELES, CAL.

IN the few works containing any detailed account of the black-tailed gnatcatcher (*Poliophtila californica*) but little information is to be found concerning the changes of plumage gone through by the male bird, the author usually contenting himself with the statement that the young male resembles the female. It is a bird, moreover, whose life history is, I think, known to but few ornithologists, and I doubt if any extensive series of specimens has been taken through the year, showing the changes of plumage undergone by the male. I was under the impression, as is, I believe, the general idea, that during the fall and winter months the two sexes were always indistinguishable; and that the black cap, the distinguishing mark of the male, was

acquired by moult during the early spring months.

This may be true in part, but that it is invariably the rule is a mistake. I had taken many specimens between August and March showing no black on the head, with the exception of the almost invisible black streak over the eye, which is, I believe, always present in the male; and others during March and April undergoing moult over the entire crown; so I was the more surprised on taking on Dec. 13, 1901, a male bird with the black cap nearly complete, though not quite as extensive as in most spring specimens, and with the black feathers tipped with the blue-gray color of the rest of the upper parts, so that the black was not apparent unless the feathers were ruffled. It

would have taken but little abrasion of the tips of these feathers to have rendered this bird indistinguishable from specimens taken during April and May. On Dec. 19 I secured another, almost a counterpart of the one described above, except that the black on the crown was not quite so extensive as in that bird.

Whether these birds acquire the spring plumage through a moult of the entire crown, or whether they merely renew the few feathers which are entirely gray, is a question. As I have taken one or two summer birds showing very faint traces of gray in the black crown, I rather incline to the latter supposition. Possibly those birds which retain more or less of a black cap through the winter, are the old males; the younger ones retaining the plumage of the female until the spring. Possibly, also, for several years they re-assume this plumage each fall, and after each fall moult a few more gray-tipped black feathers remain on the crown. As to the black streak over the eye, I

think that it is acquired at an early age; I have taken quite young birds which show it distinctly.

The time for the spring moult seems to be extremely variable; I have specimens taken at the end of February, with no trace of the black crown, and not yet commencing to moult; while on January 20, 1902 I took one with many pin feathers on the head and the black cap nearly complete. Usually, I think that the change of plumage is not finished before the first week in April. No part of the bird but the crown seems to be affected by the moult, but winter birds have the back tinged with brown, which color disappears by spring. Often the plumage presents rather a worn and abraded appearance by the time the black cap is donned; I have taken specimens which had just barely acquired their black cap, and yet their retrices were so worn that the white markings of the lateral ones were completely obliterated.

An Unusual Set of Eggs of Clarke Nutcracker.

BY H. C. JOHNSON, AMERICAN FORK, UTAH.

I HAVE the great good fortune and honor to record the taking on April 8, this year, of Clarke nutcracker, (*Nucifraga columbiana*) male parent nest and five eggs; also the female parent, nest and three eggs on April 17, by W. Dunsdon on the southwest slope of Box Elder Mountain, Wasatch Range, Utah Co., Utah.

The same collector secured the three nests mentioned in THE CONDOR, May-June 1900, and on the same mountain, Mr. Dunsdon to whom all honor is due is an old and seasoned miner and prospector and above all a courageous mountaineer. For four consecutive years he has made some of the gamiest mountain climbs in March and April, seeking the nests of that elusive *rara avis*, Clarke crow. He will permit no dallying with names, laughs at your

latin and will not stand Clarke nutcracker or Clarke crow; "It is just simply 'camp robber,' lad, for I have known it as such before you were born and that settles it."

In March he tried a "little trip" but could not get up the mountain, but early in April he made another attempt, gaining the altitude where he found his previous nests in 1900. According to former experience gained he watched the birds rather than the trees but could not get around very much on account of the deep snow. Finally he was rewarded by seeing one fly directly to a large balsam tree near by; then he could see the nest. The setting bird immediately left the nest and the newcomer took charge of the incubation. For some two hours he waited, then the mate returned allowing the other to go. In

this way he states they change during each day, just about every two hours. There is no waiting around the nest,—the parents arriving and leaving quickly and directly.

This set he collected April 8, taking the male by hand from the nest and five beautiful eggs rewarded him, incubation about one-fourth. The nest was on east side of tree, opposite the cold northern blasts, about twelve feet from ground and saddled on two stout limbs several feet from the bottom of the tree. Five feet of snow was under the tree. The nest was in no ways different from previous ones observed being very warm and adapted to the severe climate of that altitude. The eggs measure 1.33x.92, 1.26x.89, 1.36x.91, 1.34x.91 and

1.33x.94. This large set must be considered extremely unusual, the largest set previously found containing four and the usual nest complement being three.

The second set alluded to was taken April 17 at about 7000 feet altitude in a black balsam tree fifty feet high. The nest was about sixteen from the ground the tree being a very wide-spreading one four feet through at the trunk. The nest was fully ten feet from the body of the tree saddled on a great limb ten inches in diameter. The female was collected by hand from the three eggs, and with the nest carefully wound in string was safely brought down,—but alas for our hopes, incubation was nearly complete.

Notes on the Verdin.

M. FRENCH GILMAN, BANNING, CAL.

THE California range of this bird, *Auriparus flaviceps*, being somewhat restricted, a few observations made on the Colorado desert may prove interesting. In October 1889 I first made acquaintance with the bird. While hunting at Whitewater ranch, at the east end of San Geronio Pass, I found a queer nest in a mesquite and as it was a new nest in the fall of the year I thought it might be the roosting place of some new bird. Returning after dark I captured the owner. The following spring I found a nest of young birds and one infertile egg and a year later secured a set of five eggs, all in the same neighborhood. This ranch, lying at the west end of an arm of the desert and at the same time merging into a fertile mountain pass, seems to be the western limit of the range of the verdin.

The bird is shy and retiring in disposition and at first glance might be mistaken for the California bush-tit. But a closer scrutiny will reveal the yellow or greenish-golden tint of the head and the deep chestnut color of the lesser wing coverts. It frequents all mesquite

and screw-bean thickets on this desert. Its range is easily determined by the great number of nests seen. A peculiar feature is the building, by both sexes, of winter nests in which to roost at night. These nests are built in the fall and early winter and a male and female nest are usually found near together, probably mated birds. They seem to have no idea of the conservation of heat or of energy by having a "nest built for two," but go about making two roosting places.

The nests of male and female differ a little, the former being less elaborate, smaller, with not so much lining in it. The female winter nest differs but little from the breeding nest and I am inclined to believe in some cases is used as such, possibly by experienced or lazy birds. The only material difference between female winter and the breeding nests lies in the shape of the interior and possibly some difference in thickness of lining. The nest is retort-shaped with entrance through a short neck extending from one side downward at angle of 45°. In the breeding nest there is a deep cup or depression

with a ridge or rim next to the entrance tube or neck, to prevent the eggs rolling out. In the winter nest there is merely a slight depression, little more than a shelf on which to rest. The one instance which leads me to think the young are sometimes raised in the winter nest is as follows:

In the early part of March, 1899, — the 7th I believe—I found a male winter nest and about twenty feet from it what I supposed to be a female winter nest, both in the woolly yerba santa or *Eriodictyon tomentosum*. A few weeks later, about April 15, I examined the nests and found four fresh eggs in the female's nest. That evening after dark I returned to the nests and captured both male and female in their nests. I took them to my camp and in the morning the female had added another egg thus completing the set for me, for which I rewarded her with liberty.

Looking over my notes I find most of the verdin entries date from March 20 to May 2, most of the fresh eggs being found the last week in March, though I have found fresh eggs on March 10. The number in a set is four or five about evenly divided a to frequency. This season I have found three complete sets of four each and two of five. Most frequently the nests are found in mesquite trees and the smoke tree or *Dalea spinosa*, Daley's thorn tree. But any spiny shrub will answer, as I have found nests in the screw-bean, cholla cactus, desert willow, tree-sage, cats-claw, *Eriodictyon*, and last month I found one in a grapevine growing up in a cottonwood tree. The nests will average about five feet from the ground though I have found them as low as 2½ feet and as high as ten or twelve feet.

The bird is easily flushed from the

nest and can be heard chipping in the nearby brush but takes care not to approach the intruder. But there are exceptions; as this season a pair of them came only four feet from me and scolded while I examined their nest of fresh eggs. Infertile eggs are often found especially toward the end of the breeding season, and in most of the sets of five eggs one is infertile. I do not think I ever found five young in the nest though often four and one rotten egg. The eggs resemble those of the gnat-catcher, pale green with brownish spots on them, but are a little smaller and the markings paler and often coarser, approaching blotches.

Last December I found two female winter nests and later saw several of both sexes. One of them in a mesquite tree was ten or twelve feet from the ground and measured more than eight inches long by seven wide and seven deep. Lining was about one and one-quarter inches thick and composed of feathers—quail, chicken and others. The cavity was spherical, about one and one-half inches in diameter. The exterior was of mesquite and other thorny twigs, grass and weed stems, fine leaves, and any woolly or sticky fibre or weed that would hang together and help bind the nest.

The birds seem almost independent of water as I have found nests and young about five miles from water and have seen old nests at least ten miles from any known water. The problem I am now at work on is that of the use of winter nests for breeding and if a number of nests can be located and marked next fall and winter and examined in the spring the question can be settled. Perhaps some of THE CONDOR readers can answer from personal experience or some other knowledge.

The Southern White-headed Woodpecker.

BY JOSEPH GRINNELL.

+*Xenopicus gravirostris*, new species.

SPEC. CHAR.—Similar to *Xenopicus albolarvatus* but bill much heavier, and size in general

slightly greater.

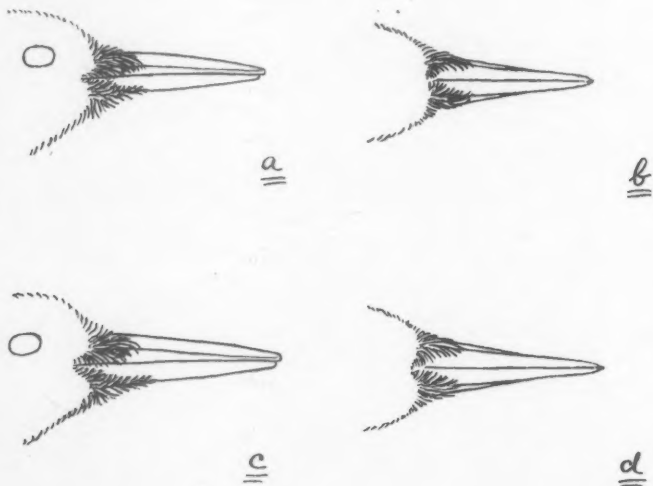
TYPE—♂ ad.; No. 2926 Coll. J. G.; Camp Chileo, Sierra San Gabriel, Los Angeles County, California; July 6, 1897; collected by J. Grinnell.

RANGE—The Southern Sierras of California (Transition and lower Boreal Zones) from the Tejon Mountains (probably,) south to the Cuyamaca Mountains.

REMARKS—The differences between *X. albolarvatus* and *X. gravirostris* are slight, and apparently exist only in dimensions, chiefly those of the bill, as shown in the accompanying drawings. The relative extent of white and black areas in the two forms seems to be identical. The size of the bill in the two cases is remarkably constant, but in two instances at hand individual variation brings an overlapping of characters. In a specimen from Red Point, Placer County, the bill is as long as the average from the San Bernardino Mountains, but at the same time it is slenderer so that the total bulk is conspicuously less. The bird from the San Bernardino Mountains with the shortest bill is in this dimension equal to the average of *albolarvatus*, but the thickness is much greater than in any of the latter. The drawings are from selected average examples, not extremes. The material at hand does not justify subspecific treatment of these two forms. Geographical continuity of ranges possibly exists; but it seems quite as likely that there is a broad hiatus in the vicinity of Tehachapi Pass, whence I can find no record of the white-headed woodpecker. The following adult specimens from California have been examined:

X. albolarvatus—Kernville 4 (probably neighboring mountains); Big Trees, Calaveras Co. 2; Cisco, Placer Co. 2; Snow Mt., Colusa Co. 2; Echo, El Dorado Co. 4; Eagle Lake, Lassen Co. 5; Lights Canyon, Plumas Co. 1; Red Point, Placer Co. 3; Horse Creek, Siskiyou Mts. 3.—Total, 26.

X. gravirostris—San Bernardino Mts., San Bernardino Co. 13; San Gabriel Mts., Los Angeles Co. 3.—Total 16.



Figs. A and B—*X. albolarvatus*, ♂, No. 5108 Coll. J. G., Horse Creek, Siskiyou Mts.

Figs. C and D—*X. gravirostris*, ♂, Type, No. 2926 Coll. J. G., Sierra San Gabriel, Los Angeles Co.

Bird Studies in Strawberry Valley, Aug. 25—Oct. 25, 1902.

MRS. C. A. MOODY, LOS ANGELES, CAL.

AT the end of a long and dusty stage ride up the mountain road, and several hours after the sun had dropped behind the peaks, we reached this valley—now more widely known as Idyllwild, Among-the-Pines. Naturally, in the morning, our first thought was a mixture of curiosity and a great desire to find out what kind of a place we had come upon in the very heart of the mountains.

In a natural park of white oaks and yellow pine trees stands the Idyllwild Sanatorium, having for a picturesque back-ground, the towering granite peaks of the San Jacinto Mts. The lower parts of these mountains are thickly wooded with yellow and sugar pines—each attaining a giant-like size with the growth of many years, while cedars and firs abound tho' by reason of their nature they do not aspire to such dizzy heights. Glimpses of white tents here and there among the trees, give one the impression that out-of-door life is much preferred.

Very pretty, modern cottages have been erected near the sanatorium, in which are comfortably furnished rooms. Beyond the park, on another ridge, one may find cottages for housekeeping. Our choice was a large tent furnished for housekeeping, and somewhat isolated from the others. It was set just at the edge of a rocky slope, well shaded by white oak trees with a yellow pine or two to keep them company. Down the hill, and across a pasture path,—where sweet ferns, youthful pines and many grasses grew, we found a cool mountain stream, making haste to reach the valley below. Now, I thought, this should be an ideal place for birds; so without much delay my hammock was swung where I could easily look down the hill, and beyond the waving ferns into the shadows cast by the trees along the brook.

The red-capped woodpecker was the

first bird to attract my attention. He was, by far, the noisiest bird here and can safely be termed, "monarch of all he surveys," in this immediate neighborhood at this time of year. At times, by way of courtesy, he will allow the bluejays a small section of the ground. The smaller birds, however, don't count for much in Mr. Redtop's opinion, for he chases them away quite remorselessly, and goes on with his hammering. One small boy said, "I should think he would knock out all of his brains" so hard would he pound away sometimes.

This California woodpecker is a noticeably showy bird, with his glossy green-black coat, crimson head dress, and a dash of yellow at his throat. Some think he is a blue-black, but in some lights I found the green luster very clearly brought out. Male and female are much alike in markings, unless possibly the female wears a smaller red cap. His ways of covering a tree when in quest of food is truly ludicrous. Creeping, sliding, gliding up or down the tree seems equally agreeable to him. He rarely comes to the ground, but puts in most of his time drilling through the thick bark of the yellow pine. Sometimes he strikes a choice spot, and there he will cling, serenely sipping something as if it were the "nectar of the gods." The thought came to me that perhaps he had taken to chewing the pine gum!

The jay seen about here is the blue-fronted jay, known to inhabit the coniferous regions. Male and female have a crest and markings are similar. The light-blue lines which extend up the forehead between the eyes give a very quizzical expression to the bird. At first the jays kept rather quiet and were not much in evidence. One came to inspect, then a few more. After a little while I had more jays than I had bargained for, feasting at the back of the tent. Bread exposed to the dry moun-

tain air soon hardens, and many pieces were to be found half hidden among the sticks and stones on the hillside.

An enterprising jay found a particularly hard piece one day. He flew up to a branch of the oak tree, and, putting his feet on the bread to hold it quite firm, proceeded to hammer it with his bill, after the manner of a woodpecker. For many minutes he wrestled with that piece of bread, (he must have been in a terrible state of mind) until another jay came to see what could be the matter. He meant to stick to it, however, and didn't intend to "go shares." I haven't yet made up my mind whether he came off conquerer, or abandoned the situation. I do know that he worked hard for a long time then flew away. Occasionally I add grapes to their menu. That is a surprise and much appreciated. Some were put in a bag and fixed in one of the trees, and, instantly, their curiosity was aroused.

One came and pecked at the paper bag, and soon discovered that when he tore the paper it made a noise. It was not long before the grapes were found, and such a hue and cry came from the lookers-on in the branches above. Down they flew jabbering as they came, and it is needless to relate that there wasn't a grape left in the bag in a very short time. Since then I've never doubted the inquisitiveness of the bluejays. In addition to the characteristic scold note the blue-fronted jay has many distinctly different notes, some of which are soft, whispering notes, and very pleasant to hear.

All of the jays are more or less pugnacious, and few birds come about their feeding grounds while they are in possession. The ground squirrel is more bold, and one was often seen feeding with them.

Chickadees, mountain bluebirds, flycatchers, and Brewer blackbirds are seen every day if one takes the time to observe. The bluebirds come for a frolic on the tent-ropes late every after-

noon, after all the noisy birds have said good-bye for the day. As the shadows grow darker, flocks of tiny seed-eating birds come to the quiet hillside, and flit through the ferns and grasses, where they find food to their fancy. Twice a hummingbird came and stuck his long bill into a scarlet penstemon flower, but was off again before I could note his colorings.

An almost daily visitor is a cunning creeper, who comes to the nearest tree, and inspects it for food. He has a sweet note of inquiry, and appears to have little fear. Once he flew to the ground to see what the other birds were doing, but he seemed to care more for the food which he found in the trees. This was the slender-billed nuthatch. Three times a grosbeak was noticed eating at the bird-table, but was not clearly identified.

As the weather becomes colder, the hammock studies came to an end, and I was obliged to go abroad. On one of my long excursions, I caught sight of a white-headed woodpecker, flying from one high point to another. Chickadees were seen feeding on the manzanita berries. The clear ringing note of the red-shafted flicker was heard often, but he rarely showed himself. Finding the feathers of one near our tent one morning I concluded that there had been a tragedy during the night.

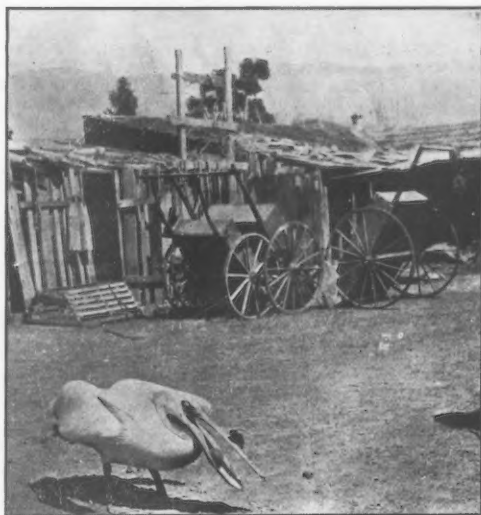
A common night sound, coming from the distant canyons, is the hootings of the owls, which is not especially conducive to peaceful slumbers, if there is only a piece of striped awning between one and the wide-wide world. The woodpeckers began putting in their supplies for the winter about the first week in October; and after that they worked every day from early morning till sun-down, picking the acorns, taking off the cap, and skillfully packing them away in the holes made by them in the bark of the pine trees. On every walk and ride strange birds were to be seen, so that I was fully convinced a student would find here a good field for birds.

A Domesticated White Pelican.



Mr. A. P. Redington of Santa Barbara has favored THE CONDOR with the interesting photographs presented herewith, and adds a few words concerning the tameness of this white pelican. Mr. Redington writes: "It was captured some years ago and has been in captivity ever since, though it has liberty to go and come at its will, which I suppose could hardly be termed "captivity" in its true sense. It is in possession of a fisherman's family whose residence is located near the beach, and the bird has the freedom of the yard, and street for that matter, as I have frequently seen it flying up from the beach homewards, sometimes keeping in advance of a team, and flying but a few feet above the ground. At

other times I have noticed it approach high in the air, and circle in lowering circles until it landed in the yard. It is quite tame, and has been taught many tricks by the family, such as catching a ball or other object when thrown at him and sometimes tossing it into the air again. When performing this feat, it seems to extend its pouch to its fullest capacity and this acts like a basket in catching the object. He is fed on fish from the fish stall, and eats almost anything of that description given him. These people have another pelican, one of the brown variety, but it is not as domestic as the white one. It is absent for long periods."



FROM FIELD AND STUDY.

Large Set of Cactus Wren.—On April 22, 1902, I took a set of seven eggs of the cactus wren, (*Heleodytes brunneicapillus*). This is the largest set I have ever taken. In my experience in this section I have found the usual complement of eggs to be four, sometimes five, and often only three.—WILSON C. HANNA, *Colton, Cal.*

+ **Vermilion Flycatcher at Escondido.**—On April 6, 1902, I secured a male vermilion flycatcher (*Pyrocephalus rubineus mexicanus*) in full spring plumage, and upon dissection found it physically in a breeding condition. When taken it was feeding with a flock of tricolored blackbirds in a marshy piece of land near the San Luis Rey River, about ten miles inland.—NELSON CARPENTER, *Escondido, Cal.*

— **Arizona Goldfinch in Los Angeles County.**—Mr. Howard Robertson has recently presented me with a specimen of the Arizona goldfinch (*Spinus psaltria arizonæ*), a male bird, taken by himself at Los Angeles on February 6, 1897. This sub-species is not recorded in Grinnell's "List of Birds of the Pacific Slope of Los Angeles Co." and I have seen no record of its occurrence in this locality since that work was published, so that although its range is usually given as including southern California, it must be regarded as of very rare occurrence in Los Angeles County at least.—H. S. SWARTH, *Los Angeles, Cal.*

— **Western Blue Grosbeak in Northern Colorado.**—While on a visit to my place August 15-20, 1901, Prof. A. H. Felger of Denver took a good specimen, a female, of *Guiraca cærulea lazula*, which was feeding in the orchard and the only specimen observed. There have been five or six pairs of the western blue grosbeak about the vicinity the past two weeks. I secured a few of them. They appeared to be on the move and have been observed as mated. This variety is not uncommon in some of the southeastern portions of the state, for which reason I desire to record its occurrence at this northern point.—FRED M. DILLE, *Altona, Boulder Co. Colo.*, June 18, 1902.

Odd Gyration of Hummingbirds.—I would like to ask if anyone has observed a sort of dance or gymnastic exercise of the hummingbird similar to that which I once witnessed? It was just after sunset of a clear, bright day in San Mateo, Cal., when I noticed a male Anna hummingbird making great circles in the air at a very rapid rate. The plane of the circle was perpendicular and I should judge it was fifteen feet in diameter. He rose somewhat more slowly than he swung down again, but the whole movement reminded me of a stone whirled at the end of a very long string. Was this to impress the female or merely for the joy of motion?—ANNA HEAD, *Berkeley, Cal.*

— **The Rose-breasted Grosbeak in Colorado.**—The only record I can find for *Zamelodia ludoviciana* in the state is in Cooke's list; where a pair are recorded breeding at Longmont, Boulder Co. I now have the pleasure of recording a specimen taken in my own county (Larimer) by my cousin, L. E. Burnett, near Loveland on June 1, 1902. A pair were seen but only the male secured; this is now mounted and in his collection.

He also secured on June 7 a pair of western blue grosbeaks (*Guiraca cærulea lazula*) which is the most northern record for the state.—W. L. BURNETT, *Fort Collins, Colo.*

— **Nesting of Pine Siskin in Santa Cruz Co., Cal.**—June 11, 1902, A. G. Vrooman took a set of pine siskin (*Spinus pinus*) six miles from Santa Cruz. Eggs were four, slightly incubated. The nest was sixty feet up in a pine tree and eighteen feet out from the trunk on the end of a limb; composed of weed twigs, strips of soft bark, and moss and lined with the body hair of cattle or horses. The eggs were taken with a small dip net on the end of a fishing rod. Several other pairs of birds bred in the same grove.—H. F. BAILLY, *Santa Cruz, Cal.*

Nightingales in California; A Query.—Spending a night in a Liverpool hotel in August 1887, I was informed by the landlady that a man had just sailed for America with a cage of 100 nightingales, which were to be turned loose in "a gentleman's park" in California. Does anyone of the members of the Club know where the "park" is, and what became of the nightingales? In driving through the famed vale of Tempe and listening to the nightingales, I could not but be struck by the similarity of the scene to our southern California canyons, and I almost fancied I was listening to our too little appreciated mockingbird. The rocks and stream looked as they

do here; the trees were almost the same,—the sacred laurel being no other than our familiar bay tree; the plane-tree our sycamore and the arbutus our madrone. Even the odor and feeling of the air was like home. Why then should not the nightingale find himself at home and prosper in California?—ANNA HEAD, *Berkeley, Cal.*

Stragglers in Los Angeles County.—While Mr. G. F. Morcom and myself were combining the pleasures of quail shooting with the collecting of ornithological specimens in the San Fernando Valley, on Dec. 13, 1901, we had the good fortune to secure a lark bunting. (*Calamospiza melanocorys*.) The bird was flushed out of a thick clump of cactus and shot by Mr. Morcom. It was a young female in the streaked plumage, without a trace of black, and at first we hardly knew what we had secured. On Jan. 16, 1902, I secured another not two hundred yards from where the first one was shot, and a minute or two later flushed at least three more which scattered in the thick brush and were lost sight of. This second specimen was a male, and probably an adult bird, as there were many black feathers in the wings and tail and about the head.—H. S. SWARTH, *Los Angeles, Cal.*

Wren-Tit Building in a Tree.—It has always been one of my traditions, strongly corroborated by experience, that the family of wren-tits invariably build nests in low bushes, near the ground, the highest observed not having been over three and one-half feet. On the morning of the 18th of April, 1902, however, I observed a wren-tit (*Chamaea f. henshawi*) carrying materials for a nest. Half an hour's watch failed to locate any particular bush that seemed to be the building site, but I noticed that the birds always flew into a live oak tree before diving into the surrounding bushes. Close approach, and several changes of position without giving offense to the busy pair, finally developed the fact that they had chosen the thick outer part of a large overhanging branch of this tree for the site of their nursery, and the height above ground of the nest was estimated at twelve feet. This morning they appeared to be nearly through with the labor of lining, and I presume the fairer partner will assume her maternal duties in a day or two. Unfortunately it will be impossible, from its situation, to watch this nest for further details. If any of the readers of THE CONDOR have discovered similar sites for nest-building appropriated by these birds it would be of general interest to know of such.—JOSEPH MAILLIARD, *Santa Barbara, Cal.*, April 20, 1902.

An Unusual Sight.—What seemed to me a sight worthy of note was observed a few mornings ago on the outskirts of this town. A man was endeavoring to burn the rather green grass on the golf links near the mission during the prevalence of a very strong north wind. While walking along the road, some half mile from the spot, I first observed the smoke rising, and soon noticed that, on the lee side of the fire, the air was dark with what appeared to be swallows, but did not at the moment connect the two incidents in my mind. Approaching from the windward side I ran into a small flight of white-throated swifts (*Aeronautes melanoleucus*) accompanied by a few Vaux swifts (*Chactura vauri*) and a few swallows, and being too near houses to use a large charge, managed to drop a couple of the *Aeronautes* with my 32-cal. auxiliary as they were bucking against the wind. The field was burning just opposite my quarters, and on close approach the air appeared to be actually full of swallows, cliff swallows far outnumbering the other varieties, darting about in the lee of the fire and following the thin smoke for at least a quarter of a mile. All the swallows of the neighborhood seemed to have congregated on the spot. Many were actually flitting through the smoke within three feet of the smoldering blaze where the grass was too green to burn freely, though the heat must have been considerable within such a short distance of the fire.

The burning was not continued for any great length of time on this day, but was resumed on the next when the same occurrence was repeated, the only difference being that the wind being less strong and somewhat shifting the area of the smoke was greater and the birds consequently more scattered. Also on this morning a good many swifts were among the swallows, while on the previous day these had mostly kept to windward of the smoke. On the third day I was busy putting up specimens and did not notice whether there was any fire or not, but in the afternoon Mr. A. P. Redington came to call on me and was much interested at having seen a repetition of this occurrence on the way over, it being something new in his experience.

Neither of us was able to solve the phenomena. We could not ascertain whether the birds were after insects stirred up from the grass, whether they were attracted by the smoke itself, or whether they mistook fine cinders for insects. The first hypothesis seemed untenable from the fact that there could not have been enough insects from such a small area of grass as was burning to amount to much in the way of food for such an assemblage of birds, while the third seems an insult to the birds' intelligence on account of their persistency in following the smoke for several days. It really appeared as if the smoke itself or the odor therefrom was the great attraction.—JOSEPH MAILLIARD, *Santa Barbara, Cal.*, May 25, 1902.

PUBLICATIONS REVIEWED.

PACIFIC COAST AVIFAUNA | No. 3 | Check-list of California Birds | by | Joseph Grinnell | Santa Clara, California | published by the Cooper Ornithological Club, June 25, 1902; pp 1-92, 2 maps, royal 8 vo.

The long-expected State List has appeared in the form of a well compiled and useful check-list from the pen of Mr. Grinnell. The painstaking labor involved in digging out and verifying records and synonyms is not such as would appeal to most Californians, who, perhaps, are chronically eager for quick results. For this reason the finished Check-list will prove all the more acceptable to us, and Mr. Grinnell is to be congratulated on the successful completion of the largest and best prepared State List that has yet appeared. Not only is the Check-list full but it is likewise authoritative, and it is to be hoped that our club members will adopt this as a basis for future faunal lists.

The paper of ninety-two pages opens with a preface explaining the author's stand on questions of nomenclature, and his attitude in regard to the admission of doubtful records and species in poor standing. "In compiling the present list, the author has tried to be reasonably conservative as regards the admission of species in doubtful standing. In order to be worthy of a place on the State List an 'accidental' must have been as a rule secured and preserved so that it can be re-identified whenever desirable. The more unusual and unexpected the alleged occurrence of a species, the better the evidence must be of such occurrence before it can be accepted as authentic." For this reason the Hypothetical List is rather long. The sequence of the American Ornithologists' Union Check-list has been followed, but the nomenclature in many cases "has been remodeled according to the best of the author's own knowledge." The author has taken the commendable stand that "A binomial is preferable to a trinomial when there is any good excuse for its adoption." (Ridgway)," and has consequently reduced to binomials a number of names which have usually been written as trinomials. Discarding the "slight degree of difference" heresy, and the criterion of intergradation thru individual variation as leading to endless confusion, the author has regarded as subspecies only such forms as have been found to intergrade over a continuous geographical area. Consequently all insular and geographically isolated forms are treated as distinct species. To the present reviewer this appears a most sensible course, a course not incompatible with logic and facts, and one which in the pages of the Check-list has proven thoroughly practicable. Such a stand may at first seem radical,

but in reality it is only in heed to the very sane warning uttered nearly twenty years ago by Dr. Stejneger. ¹

There has been a marked tendency to reduce binomials to trinomials in recent years, merely on supposition of intergradation, or from "slight degree of difference" qualifications. This, rather than the so-called hair-splitting, has been the chief injury to ornithology. For some time the insidious "degree of difference" criterion has held a pernicious place in the affections of some of our systematists; and has proved to be one of the most unscientific theories of the many which must be charged against ornithology. To assume that all species are separated by approximately the same amount of difference is palpably absurd for we know that while some perfectly good species can hardly be told from their nearest relatives, others are subgenerically separated from their closest congeners. Because one species can not readily be told from another does not necessarily militate against its validity as a full species. Nor, in the absence of any scientific evidence, does it make more excusable the use of a trinomial as an easy solution of the difficulty. Under this regime the particular mood of the describer and nothing else would determine whether a new species receive a binomial or a trinomial designation. One of the boasts of science has been the minimizing of the personal equation but here we have to do with little else. For the use of trinomials in insular forms, much can be said, and admittedly this is a problem hard to settle. But beyond an apparent advantage in showing relationship (a function which nomenclature can not hope to fulfil) the trinomial possesses no advantage over the binomial. We should not allow matters of personal convenience to obscure what seem to be the real facts. Surely the facts would warrant the binomial here, as in the case of the geographically isolated 'race.' In this case individual variation has been mistaken for geographical, or has been taken as sufficient evidence of subspecific rank. By adopting a simple rule as a guide the author of the present check-list has tried to root out as many of the spurious trinomials as facts would permit. A salutary course for the future would be the application of Dr. J. A. Allen's *golden rule* "the test of intergradation." Should any enthusiastic trinomialist wish to reduce binomials the burden of proof must rest with him.

Two colored maps of California, one illustrating the life zones and the other the faunal areas will be of great use in elucidating the distribution of species, especially for those who are not very familiar with the physiography and climate of this wonderfully diversified state. The life zones are those made familiar

¹ Proc. U. S. Nat. Mus. VII, 1884 p. 78.

by Dr. Merriam's various publications on the subject. The faunal areas comprise (1) the "Humid Coast Fauna," which is subdivided into a "Northern Humid Coast Belt" and a southern "Santa Cruz District;" (2) the "California Fauna" including the dry "San Joaquin-Sacramento Basin," "San Francisco Bay Region," "San Diego District," and "Santa Barbara Islands"; (3) the Sierran Fauna, divided into two subfaunas, the "Sierra Nevada" and Southern Sierras;" (4) the "Arid Interior Fauna," including the "Great Basin" and "Colorado Desert" subfaunas.

The Check-list comprises pages 9 to 74, and the Hypothetical List 75 to 79. This is followed by a full index of names and synonyms. The list includes the scientific name of each species with the original authority and the authority for the combination. Each name is preceded by a running list number, and, in parenthesis, the A. O. U. Check-list number. Following the scientific name, on the line below, is the common or English name. Under each species is given a list of synonyms, that is 'all the other names besides the accepted one by which each species has been known in California literature.' Following this is the 'status' which 'is intended to give in a condensed sentence the range, comparative abundance and season of occurrence of the species in question. The range is usually expressed by Zones and Faunal Areas which are outlined in the accompanying maps.' The list comprises 491 species and subspecies which are distributed thru the orders as follows: Pygopodes, 17; Longipennes, 23; Tubinares, 17; Steganopodes, 6; Anseres, 42; Herodiones, 10; Paludicola, 8; Limicola, 37; Gallinae, 9; Columbae, 4; Raptores, 38; Coccyges, 3; Pici, 21; Macrochires, 17; Passeres, 229. The Hypothetical List includes 33 species.

The author's 'conservatism' has led him to include all species as well as subspecies that in any way seem worthy of recognition, for, as he states, a subspecies is as important as a species (and, the reviewer would add, often much more important in bringing to light facts of distribution, migration routes, and the effect of environments). Despite the oft repeated 'regrets' of lay ornithologists, and the objections of those scientists whose knowledge comes by inspiration rather than from specimens, these finely split subspecies exist in nature and are the very factors which make the avifauna of California the most perplexing and likewise one of the most interesting in all of North America. We heartily agree with our foremost systematist, Mr. Ridgway, that the best interests of science are subserved by prosecuting the present methods of splitting to a logical conclusion.

Not a few of the forms accepted by Mr. Grinnell have been excluded from the A. O. U. Check-list, and likewise a few appearing in this standard work have been omitted from the California Check-list. Probably we have no reason to hope for nomenclatural stability until systematic ornithology has ceased to progress.

The present paper is the most important work on California ornithology that has appeared in recent years.—W. K. F.

OBERHOLSER'S REVIEW OF THE HORNED LARKS (*Proc. U. S. N. M. XXIV, June 1902, pp. 801-883, pl. XLIII-XLV, maps I-IV*)—This paper strikes us as a model of detailed systematic work. Points of nomenclature seem to be worked out beyond question, and the standard of nameable races appeals to us as quite conservative enough. For the present, at least, we ought to be justified in accepting Mr. Oberholser's conclusions as decisive.

As affecting California, several important changes are made. The subspecies we have been calling *chrysolaema* is renamed *actia*, the former name proving exclusively applicable to a distinct Mexican form. What we have known as *arenicola* from the southeastern deserts is separated from the more eastern forms as a new race, *ammophila*. A new race is also described from the vicinity of Yuma and is called *leucan-siptila*. A Rocky Mountain form, *leucolaema*, is recorded from the east-central border of the State in winter. All the rest of the races are as given in our "Checklist of California Birds," making, all together, eight distinct horned larks occurring in California.

From a more general point of view Mr. Oberholser's paper is of decided interest. While Henshaw in 1884 recognized by name eight different horned larks from North America, and Dwight in 1890 distinguished eleven forms from the same region, Mr. Oberholser's studies lead him to recognize no less than twenty-one different forms, all of which he treats as subspecies of *Otocoris alpestris*. This growing number is partly accounted for by an increase of available material, and also is significant of the rapid development of our analytical faculties. We can but await the results of the next *Otocoris*-monographer's work with especial interest. As Mr. Oberholser states in the present paper, almost infinite division is possible, and he might have easily doubled the number of races admitted. What will be the degree of difference recognized twelve years hence?

There is one practice in this paper which seems to us open to question. To select a case for illustration, Mr. Oberholser gives Stockton as a station for *leucolaema* based on one (or more) winter specimens. Now may not this individual, showing an aggregate of characters nearest *leucolaema*, be not simply an individual extreme of, say, *merrilli*; which occurs in numbers in the same locality at the same season? The author plainly states that individual and "local" variation within the range of a well-defined race may produce extreme types more different from each other than the average of that race is from the average of another of an entirely separate range. Is there not danger of denoting such extreme individuals by the names of similarly looking subspecies when their real affinities are not with those races at all? It is very evident that mistakes of this kind would lead to wrong deductions in regard to migratory movements, and distribution in general, which is after all where the chief value of distinguishing geographical races comes in.—J. G.

THE CONDOR.

Bulletin of the

COOPER ORNITHOLOGICAL CLUB OF CALIFORNIA.

Published bi-monthly at Santa Clara, Cal., in the interests
and as Official Organ of the Club.

CHESTER BARLOW, Santa Clara, Cal.,
Editor and Business Manager.
WALTER K. FISHER, Stanford University Cal.
HOWARD ROBERTSON, Box 55, Sta. A., Los Angeles,
Associates.

Subscription, (in advance) - - - One Dollar a Year.
Single Copies, - - - 25 Cents.
Six Copies or more of one issue, - - 12½ Cents Each.
Foreign Subscription, - - - \$1.25.
Free to Honorary Members and to Active Members not
in arrears for dues.

Advertising rates will be sent on application.

Advertisements and subscriptions should be sent to the
Business Managers.

Exchanges should be sent to the Editor-in-Chief.

Entered at the Santa Clara Post-office as second class
matter.

This issue of The Condor was mailed July 17.

EDITORIAL.

Why Not Hold an A. O. U. Congress in the West?

Apropos the projected State Meeting of the Cooper Ornithological Club in 1903, in anniversary of its ten years' existence, it occurs to us that this should prove a most opportune and excellent time for an ornithological jubilee, so to speak, having for its aim the assembling of ornithologists from both the East and the West. The question suggests itself: "Why may not an A. O. U. Congress be held in the West?" We know that such a movement would have the warm approval of all western ornithologists, while we believe that our eastern confreres would correspondingly enthuse over the prospect of a western outing.

Within the past few years ornithology in the West and especially in California, has experienced a decided and substantial boom, which means that our coast workers have taken a greater interest in the workings of the A. O. U. We know that the annual Congress of the Union has frequently led many to wish that something less than 3,000 miles might intervene between the West and the scene of ornithological activity. At the same time the West, generally speaking, has had no valid claim to a meeting of the Union, and yet we believe such a session would be productive of much good.

Comparatively few of our eastern workers are familiar, through actual experience, with the geographical conditions affecting bird life in California. Frankly we believe that a few outings to favored localities would result in a fuller appreciation of the elements which may differentiate a bird within a restricted range.

We believe that a study of this feature alone would interest our eastern friends, and no doubt Mr. Grinnell will consent to illustrate to visitors the inherent intuitiveness which separates the yellowthroat of the tules from its cousin in a nearby grass plat.

But aside from the inducements which a western meeting should offer to our eastern associates, California would most certainly appreciate the honor accorded by a meeting of the Union. We can, in advance, safely bespeak a cordial welcome and a generous reception should a western session be deemed possible. It occurs to us that Palo Alto—admirably situated to insure a strong attendance and for observation purposes—would be a model place for a congress. It is easy to perceive that such a gathering would be far-reaching in its effects. Most of our western workers have but little conception of an A. O. U. congress. To them it would mean a greater appreciation of the Union and its work. Among the older workers acquaintances would be renewed, while with others friendships would be created which would endure for years.

The Cooper Ornithological Club owes much to the cordial spirit which pervades its meetings and which exists between members. We presume that the same element has been infused into the Union. At any rate it will not be found lacking in California. We therefore earnestly and cordially present the request: May not California be favored with the A. O. U. meeting in 1903?

Readers of THE CONDOR must have been impressed with Mr. Vernon Bailey's article in our last issue, reciting the devastation among the water-birds frequenting certain lakes in California, Oregon and Nevada. The fact that such vast and interesting rookeries exist should enthuse our western ornithologists, and every effort should be put forth to prevent this feature of an otherwise barren region begin destroyed.

Mr. Wm. Dutcher, Chairman of the A. O. U. Committee on Bird Protection, is about to gather data concerning the present status of these water-birds and to provide all possible protection. At the same time it becomes the duty of ornithologists residing in California, Nevada and Oregon to lend material assistance and to co-operate with Mr. Dutcher in his praise-worthy work.

This incident also emphasizes the necessity of a bird bill, which California at least would have had in force but for the stupidity and apathy of its governor. But the next legislature will present another opportunity for work, and we may confidently look forward to the day when the scores of such natural breeding grounds as Tule Lake will remain undisturbed throughout the year.

The June issue of *American Ornithology* contains a half-tone photograph labelled "Young Purple Grackles," purported to have been taken by Ross Nicholas. The original photograph of this interesting group was taken by Herman T. Bohlman, Oregon's well-known

b'rd photographer, and was published in THE CONDOR for November-December 1901. We would suggest to Bro. Reed that some one has deceived him. In fact all publishers find it a necessity to discriminate closely in this day of too-frequent fraud photography, and if we mistake not, among the hundreds of bird pictures published in various periodicals during the past year, are a number suggestive of the fact that the subject had lost all interest in mundane things long before it made its advent before the camera.

In the minutes of the May meeting of the Northern Division published in THE CONDOR for May the paper entitled "The American Ornithologists' Union of 1840-45" should have been credited to Mr. Witmer Stone. Mr. H. W. Fowler kindly secured and presented the paper before the Club, much to the enjoyment of those present.

CORRESPONDENCE.

ALBEMARLE ID., Galapagos, April 1,
via Ecuador and San Francisco, June 30.

Editor THE CONDOR:

We are just down from the top of the island where we've been skinning for a few days; scaring wild cattle and dogs, getting rained on and looking at a sulphur factory have been secondary amusements. The little shot pistol is all right in this country either for birds or cattle. Have been using it altogether except on flamingos. There we used a shot-gun and secured several. Saw their nests of mud from which the young had just walked. The most complete one was only six inches high on a rock in a lagoon. Several other nests in poor shape were within a foot and a set of four stilts was twenty feet away on the same rock but a foot above water.

The stilts nest here commonly judging by their actions. The flamingos were moulting and four of those shot had no primaries. They seem to shed them altogether. I noticed the birds did not fly, but walked about in the lagoon in which was six inches of water and two or three feet of mud. One of the most interesting things lately noticed in the bird line is the extreme tameness of the hawks up at the ranch. The natives hang up their meat outside the house, by the fire, or any place handy and if it isn't watched the hawks are liable to eat it all before leaving. I saw a native knock two on the head with a short stick while they were eating his meat.

Yesterday two of us were skinning a tortoise under a tree, throwing the meat a few feet away and soon there were ten hawks within fifteen feet of us in the grass eating the meat, while eight or ten more sat in the trees either

too full to eat or waiting for a chance. The small *Geospiza fuliginosa* which is the most common bird in the group is a great friend of the tortoise on the island. I have seen over a dozen different birds hopping about on different tortoise's backs, necks and heads. It is an easy way to get the grass seeds of which they are fond. The birds pick the seeds off the tortoise's head and nose while the neck is extended and on no occasion did the tortoise seem annoyed. I saw a bright red *Pyrocephalus* taking a ride on a tortoise's back the other day. He rode several feet before flying off. There are some large tortoise on this island about 500 pounds in weight at a low estimate. We hope to get one or two alive before leaving this island.

On Tower Island we struck a petrel colony,—a colony like those you read about. We saw some thousands of them flying about a cliff and they were evidently seeking nesting sites, as many of them would dart into a crack or crevice in the lava. I spent half a day bruising my hands on the rocks trying to find eggs. Found several shearwaters' eggs but no petrels. Among the thousands of birds seen not a single *O. gracialis* or *O. cryptoleucura* was observed, all of them being *P. lethys*.

I mentioned in a former letter that I had never seen but one young booby in a nest, tho' many with two eggs. Since then I have noted several Neboux's boobies with two young ones, all sizes up to a month old at least. Have seen two or three sets of three eggs of Neboux's boobies out of perhaps 100 nests examined. These boobies, the males especially, have a most comical manner of walking about while guarding the nesting site. It consists of a very high step with a critical inspection of the ground before him, tail pointing skyward and peculiar looking eyes and mien, are some of the characteristics. I think we have one or two photographs showing some of the poses.

The frigate birds interest me greatly. I have not yet been able to get a photograph showing the fullest sized pouch of the breeding male. Have seen dozens when without the camera or when in too much of a hurry to secure what was wanted. They are tame as other birds. I caught one on Tower Island with inflated pouch and did my best to diminish its size but failed. The males secure nearly all the nesting material, bringing it to the female who watches the nest and places the material. If a nest is left by both birds for half an hour no nest is there on their return, the males from the other nests having taken all of it. The loving caress and tender cooing of the males seem more fitting to a gentle dove than to these pirates who get most of their food from the boobies.

Buenos tarde,

R. H. BECK.

Official Minutes Southern Division.

The Division met May 30 with F. S. Daggett at Pasadena, Mr. Daggett presiding. The name of John B. Feudge of Highland, San Bernardino Co., was proposed for membership. Mr. Daggett read a paper on the loons, describing the habits and nesting of the birds and calling attention to the various uses to which the skin and plumage is employed. After an extended discussion on various bird subjects the meeting adjourned.

HOWARD ROBERTSON, Division Secretary.

Official Minutes Northern Division.

The bi-monthly meeting was held at the residence of C. Barlow in Santa Clara July 12, C. A. Nace presiding. The following were elected to active membership: Henry F. Bailey, Santa Cruz; Miss Anna Head, Berkeley; Miss M. E. Skillings, Alameda and Mrs. Ruby G. Bell, Stanford University. The application of Clayton G. Siefert of Auburn to become an active member was placed on file. The resignation of Frank H. Holmes as a member was presented and on motion accepted. The following papers were presented: "Nesting of the Ruby-crowned Kinglet" by H. F. Bailey; "Notes on the Verdin" by M. F. Gilman; "Some Echoes from the Sierras" by C. Barlow. No further business presenting the meeting adjourned. The next meeting will occur on September 6, C. BARLOW, Division Secretary.

OBITUARY.

The Cooper Ornithological Club has suffered the loss of one of its active Southern Division members. Mr. Evan Davis of Orange writes: "It is with sincere sorrow that I notify you of the death of Miss Mollie Bryan which occurred at her home in Orange on Monday, July 7. Her funeral was held yesterday afternoon and was largely attended, as she was prominent in church work as well as an active member in the Ebell Society. At the time she was taken sick she was preparing an address on 'Birds and their Protection' for the County Teachers' Institute. Our Club has lost a very useful and active member."

PUBLICATIONS RECEIVED.

FISHER, DR. A. K. Two Vanishing Birds: the Woodcock and the Wood Duck. (Repr. Yearbook Dept. Agr. 1901).

MEARNS, EDGAR A., Descriptions of Three New Birds from the Southern United States. (Proc. U. S. N. M. XXIV, pp. 915-926).

OBERHOLSER, H. C. A Review of the Larks of the Genus *Otocoris*. (Proc. U. S. N. M. XXIV, pp. 801-884. pls. XLIII-XLIX).

RICHMOND, CHAS. W., List of Generic Terms Proposed for Birds During the Years 1890 to 1900 inclusive, to which are added names omitted by Waterhouse in his "Index Generum Avium." (Proc. U. S. N. M. XXIV pp. 663-729).

RICHMOND, CHAS. W. *Parus inornatus griseus* renamed. (Proc. Biol. Soc. Wash. XV. P. 155. June 20, 1902).

American Ornithology, II, Nos. 6, 7. June, July, 1902.

Auk, The, XIX, No. 3, July, 1902.

Bird-Lore, IV, Nos. 3, May-June, 1902.

Birds & Nature, XII, No. 1, June 1902.

Biological Survey Circular No. 37.

Maine Sportsman, May, June 1902.

Nature Study, II, No. 12, May. III, No. 1, June 1902.

Ohio Naturalist, II, Nos. 7, 8. May, June 1902.

Oologist, The, XIX, Nos. 5, 6. May, June 1902.

Ornithologisches Jahrbuch, XIII, Nos. 3, 4. May-Aug. 1902.

Osprey, The I, Nos. 4, 5. Apl., May, 1902.

Our Animal Friends, XXIX, No. 10, June 1902.

Our Dumb Animals, XXXIV, No. 12, May. XXXV, No. 1, June 1902.

Out West, XVI, No. 6, June. XVII, No. 1, July, 1902.

Plant World, V, Nos. 4, 5. Apl., May, 1902.

Popular Science News, XXXVI, Nos. 6, 7. June, July 1902.

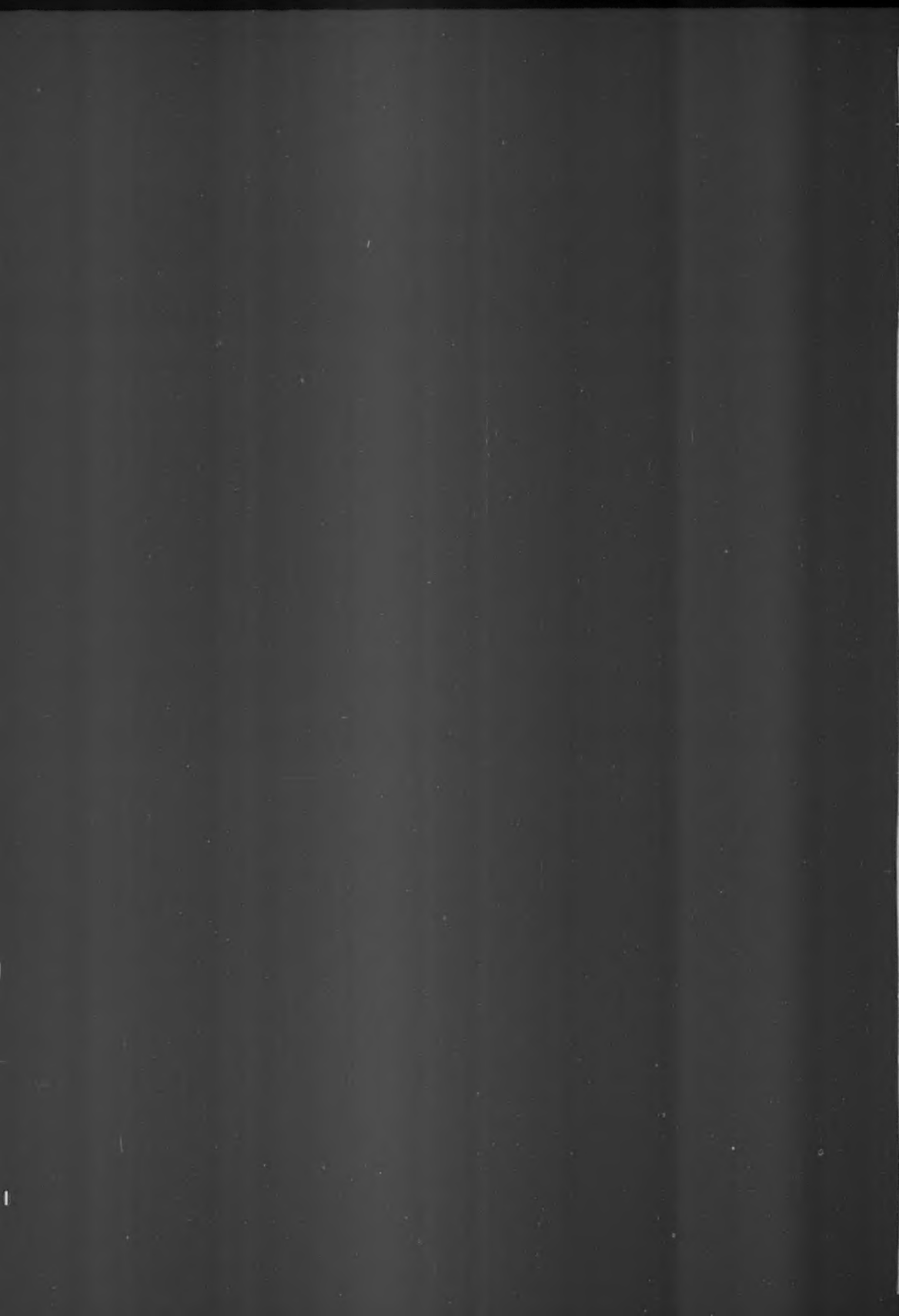
Proceedings Biological Society of Washington. Vols. XIII, XIV and XV to June 25, 1902.

Recreation, XVI, No. 6, June. XVII, No. 1, July, 1902.

West American Scientist, XII, Nos. 12, 13, May, June 1902.

Wilson Bulletin, IX, No. 2. June, 1902.





I HAVE a few good sets of mountain plover, three eggs each, at 50 cents per egg cash or will exchange to some extent. FRED M. DILLE, Longmont, Colo.

WANTED FOR CASH. The last volume of the *Nuttall Bulletin*. Address JNO. W. MAILLIARD, 307 Sansome St., San Francisco, Cal.

FOR SALE. Bendire's *Life Histories* Vols. I and II. Also copies of various publications of recent years. N. R. CHRISTIE, 23 12th St., San Francisco.

WILL PAY cash for *Oregon Naturalist*, Vol. 1, No. 2. Address C. BARLOW, Santa Clara, Cal.

FOR SALE, CHEAP FOR CASH.

My entire collection of eggs and duplicates, either as a whole or in parcels. 388 species, 2600 specimens. Chiefly collected in Utah, Texas, Pennsylvania and Illinois.

L. E. RICKSECKER,
2t. Santa Rosa, Cal.

How to Collect and Mount Insects.

Just the book for Libraries and Nature Students. 48 pages illustrated. Postpaid for 50 cts. (silver). 3t.

C. ABBOTT DAVIS,
1131 Elmwood Ave., Providence, R. I.

Maine's Bird Magazine!

Have you seen the

JOURNAL OF THE

MAINE ORNITHOLOGICAL SOCIETY?

It is a quarterly journal of Maine ornithology; "Bird protection, bird study, the spread of the knowledge thus gained, these are our objects."

Volume IV, beginning with the January 1902 number, 50 cents per annum, 15 cents, per copy. Sample copy free.

J. MERTON SWAIN,

Editor & Business Manager,
WATERVILLE, MAINE.

Are You Interested IN PLANTS

As Well as in Birds and Animals?

Then you ought to read *THE PLANT WORLD* the only popular journal of its kind in America. The fifth volume, beginning in January, 1902, will have a series of articles on the prominent botanical institutions of the country, illustrated with beautiful half-tones from photographs. Possibly, too, you will be interested in the eight-page supplement, which takes up in proper sequence and discusses from month to month all the families of flowering plants, telling their distinguishing characters, economic uses, and where they are found. It is copiously illustrated with drawings and photographs made expressly for us.

THE PLANT WORLD is an original magazine, edited for the botanist and plant lover alike, but technical matter is excluded. Everyone is welcome to tell his or her experiences in its columns.

If you knew you could secure a sample for a 1-cent stamp wouldn't you send for it? And after you had read it and found that it only cost \$1.00 a year wouldn't you feel sorry because you hadn't subscribed earlier?

We should like to tell you about some other publications, but *THE PLANT WORLD* will do that if you will let it make your acquaintance.

THE PLANT WORLD CO.

P. O. Box 334.

WASHINGTON, D. C.

Bird-Core

IS a journal for students of birds in nature. Among other interesting and helpful articles volume IV, 1902, will contain the following, all but the last named of which will be illustrated: "The Keeping of a Journal," Ernest Thompson Seton. "The Bird Voices of New England Swamps and Marshes," William Brewster; "In the Maine Woods," Fannie Hardy Eckstrom; "Recollections of Elliott Coues," D. G. Elliot and Capt. C. A. Curtis; "The English Sparrow in England," R. Kearton; "The Weapons of Birds," F. A. Lucas; "The Molt of Birds," Dr. J. Dwight, Jr.; "How to Name the Birds," Frank M. Chapman (with illustrations of over 50 species); articles on bird photography by A. Radclyffe Dugmore and F. H. Herrick, a series of papers on "Bird Clubs in America" and reviews of current ornithological literature, including the contents of the magazines. The Condor will be reviewed by Dr. T. S. Palmer.

20 CENTS A NUMBER. \$1.00 A YEAR.

THE MACMILLAN CO.

CRESCENT AND MULBERRY STREETS,
HARRISBURG, PA.

All subscribers to Vol. IV, beginning Feb. 1, 1902, will receive a free copy of the Dec. 1901 number containing Ernest Thompson Seton's article on "The Recognition Marks of Birds" with figures of 18 species of Hawks and Owls by the author, and illustrations of 16 other species of birds.

The American Ornithologists' Union
CHECK-LIST OF NORTH AMERICAN BIRDS,

Second Edition, 1895, Thoroughly Revised.



The preface to this work defines its scope and object and includes selections from the A. O. U. Code of Nomenclature, of special importance in the present connection. The table of contents consists of a systematic list of orders, sub-orders and families of North American birds. The check-list proper gives the scientific and common name, number in previous list, and geographical distribution of the 1,068 species and sub-species, constituting the North American Avifauna. This is followed by a list of birds of doubtful status, and a list of the fossil birds of North America.

This new edition has been carefully revised; the recent changes in nomenclature and species and sub-species described since the publication of the first edition in 1886 are included, while the portion relating to geographical distribution has been much amplified.

CLOTH, 8vo. 372 Pages, Price, \$1.00, Plus Postage, 15 Cents.



THE AUK



A Quarterly Journal of Ornithology.

J. A. Allen, Editor. F. M. Chapman Assoc. Editor.

As official organ of the Union, 'The Auk' is the leading ornithological publication of this country. Each number contains about 100 pages of text, a handsomely colored plate, and other illustrations. The principal articles are by recognized authorities and are of both a scientific and popular nature. The department of 'General Notes' gives brief records of new and interesting facts concerning birds, contributed by observers from throughout the United States and Canada. Recent ornithological literature is reviewed at length and news items are commented upon by the editors. 'The Auk' is thus indispensable to those who would be kept informed of the advance made in the study of birds, either in the museum or in the field.

Price of Current Volume, \$3.00. Single Numbers, 75 cts.



Wm. DUTCHER, Business Manager.

Agent of The American Ornithologists' Union for the Sale of its Publications.

**525 MANHATTAN AVE.,
NEW YORK CITY.**

